

# memorandum

DATE: 10/21/97

DEPT TO:

ATTN OF: OMD:EMB:VWS

SUBJECT: "Lessons Learned from the Emergency Response to the May 14, 1997, Explosion at Hanford's PRF"

TO: John J. Nettles, Jr., Director, NN-60, HQ

This memorandum addresses actions that AL sites were requested to respond to, as requested in the Secretary of Energy's memorandum dated August 27 1997, same subject as above. Specific actions identified in the memorandum are:

**Protective Equipment and Staffing.** Personal protective equipment, equipment for field monitoring of chemical hazards, and qualified staff (e.g. industrial hygienist) needed for post accident activities must be readily available. Availability and qualification of critical personal protective equipment will be confirmed within 45 days. Sufficient numbers of qualified personnel must be available at all times for response and post accident activities involving chemical or radiological hazards. Readiness should be periodically verified in accordance with established Departmental requirements.

AL Area Offices were requested in a memorandum dated September 17, 1997, Subject: AL Implementing Instructions Concerning Recent Emergency Management Direction from DOE/HQ, to provide information for response to DOE/HQ. The following information from AL sites is provided to you:

## Los Alamos National Labs (LANL), Los Alamos Area Office

Response to hazardous materials incidents is undertaken by a fully qualified and equipped Hazardous Materials Team from ESH-10. Their PPE is sufficient to manage any incident from minor to a major incident in scope.

The HAZMAT team has equipment outfitted in response vehicles to initiate field monitoring activities. If additional equipment is required, the Emergency Response Organization (FSS-20) has the ability to requisition additional resources and equipment as needed, from any LANL facility. The equipment is available 24 hours a day, 365 days a year.

There are sufficient, qualified individuals, including health-physicists and industrial hygienists along with emergency responders available at all times. The Emergency Response Organization has individuals and emergency response teams on 24 hour call every day of the year. LANL maintains a fully-trained Accident Response Group (ARG), Radiological Assistance Team (RAT), and

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**Allied-Signal/Federal Manufacturing & Technologies (FM&T)/New Mexico, Kirtland Area Office**

Hazardous chemicals are stored in small quantities (<55 gallons) and are cycled rapidly because of their constant use. Hazardous chemicals that FM&T/NM stores and uses are commercially available.

Personal protective equipment is available and adequate for post accident activities at FM&T/NM. FM&T/NM has agreements with Kirtland AFB (KAFB), NM and Sandia National Labs for emergency response and incident command responsibilities for fire, natural events, and large chemical spills (>5 gallons or when deemed unsafe to respond to with the existing capabilities) at facilities on KAFB. The City of Albuquerque provides the same emergency response for FM&T/NM off-base.

Therefore, post accident activities, such as small chemical spills that would occur in a FM&T/NM associate's work area, can be handled with the existing personal protective equipment used during normal work activities. There is no Class A equipment on-site. The PPE associates use is selected based on the hazards of the chemicals, routes of exposure, usage and potential small spill events, and PPE performance factors. Identification, safe use, and maintenance of PPE are accomplished through Command Media procedures, Hazard Communication Training pursuant to 29 CFR 1910, 1200, respirator fit testing procedures, PPE use training, and annual medical exams.

The City of Albuquerque Fire Department, KAFB Fire Department, and Sandia National Laboratory are aware of the chemical storage areas and hazards and have adequate capabilities to provide incident command and emergency response necessary to manage, control, and mitigate emergency conditions. FM&T/NM also has trained emergency evacuation teams (EET) to ensure complete evacuation of FM&T/NM facilities during emergency conditions, and a trained (pursuant to the requirements and guidelines of 29 CFR 1910.120) Emergency Action Team (EAT) composed of an Emergency Director and the ES&H staff. The EAT provides oversight and assistance for small chemical spills and interfaces with the outside agencies responding to on-site emergency situations.

Annual facility evacuation drills are conducted at each FM&T/NM facility that involve the EET, EAT, and the local fire department. Simulated chemical spills of the size and nature that associates could safely manage in their work areas are conducted for training purposes and to test readiness.

**Sandia National Labs/ New Mexico, Kirtland Area Office**

Necessary and appropriate personal protective equipment (PPE) is available to response personnel for both radiation and non-radiation emergencies. The equipment is tested or certified for use according to manufacturer's

the Monticello Projects is addressed in Section 12 of MAC-MRAP 1,3,4, *Monticello Projects Health and Safety Plan*. PPE is readily available for use in emergency situations as prescribed by the Plan. On-site emergency response personnel are trained in its use. Provisions are also established with local medical facilities, law enforcement, and fire department to respond to on-site emergencies. Due to the low-level radiological hazards, no PPE is required to be used by the local emergency response organizations in medical emergency situations.

Response to emergencies involving chemical hazards associated with the Waste Water Treatment Plant are addressed in Section 14 of MAC-MRAP 1,3,4, *Monticello Projects Health and Safety Plan*. Spill kits for use in responding to chemical emergencies are available at several locations on the site. These kits contain appropriate PPE for responding to chemical emergencies as designated in the Health and Safety Plan. The contents are inventoried monthly. On-site spill response personnel have been trained in the use of PPE. Emergency exercises are conducted twice a year.

#### **Waste Isolation Pilot Plant (WIPP) (Carlsbad Area Office)**

The WIPP has available qualified personal protective equipment for hazards determined to be creditable at the facility. The appropriate PPE needed for the hazards on-site is determined by the use of the site's hazard assessment, Safety Analysis Report, Contingency Plan, WIPP Emergency Management Plan, and the Safety Manual. From the review of these documents and Material Safety Data Sheets, the appropriate PPE has been determined for the emergency responders.

The WIPP has available qualified emergency response personnel trained to respond to emergency events determined to be creditable at WIPP. The trained emergency response groups are:

- Emergency Service Technicians are available on-site 24 hours a day, 7 days a week. Response for any site medical, fire, or hazardous material event.
- Fire Protection Technician is available on-site 24 hours a day, 7 days a week (currently undergoing training).
- Emergency Operations Center Crisis Management Team is available 24 hours a day, 7 days a week.
- Security Fire Support is available 24 hours a day, 7 days a week. Response for any surface fire or site security event.

Emergency Response Team is available during normal work hours (volunteer group). The team can be called upon on back shifts. Response for any surface medical, fire, or hazardous materials event.

adverse environmental impact. WIPP has scheduled an aggressive Drill & Exercise Program for FY-98. Emergency management extends written invitations to applicable state, tribal, and local governments to participate in drills and exercises as required by Memorandums of Understanding. Every attempt is made to accommodate all participants in local drills. A formal schedule is on file. Annual refresher training is provided to exercise participants to ensure trained and qualified personnel can demonstrate readiness on a continual basis.

### **Pantex Plant, Amarillo Area Office**

Initial response to all out-of-ordinary incidents at Pantex Plant that require response by an emergency team is provided by the Pantex Fire Department. Fire Department personnel are fully equipped with personal protective equipment (PPE) for the range of potential hazards at the plant. If this initial response is to an unknown hazard, maximum protection is employed by the Fire department responders, to include appropriate stand-off distance, full turn-out gear, and self contained breathing apparatus. Fire Department personnel are trained and qualified to recognize the range of radiological and non-radiological hazardous materials situations at the plant. Upon determination of the hazards present, either a fully qualified and equipped Hazardous Materials (HAZMAT) Response Team out of the Waste Operations Department, or a fully qualified and equipped response team from the Radiation Safety Department, is called to the scene.

In either case (radiological or non-radiological hazardous materials), the emergency response teams are trained, qualified, and equipped to manage any incident from minor to major in scope. The HazMat team has response vehicles appropriately equipped to initiate field response and support clean up activities. The radiological response team has access to three Pantex Radiological Assistance Team (RAT) vehicles which serve the dual response roles of on-site and off-site response. The three vehicles are equipped for command and control, survey, and contamination control respectively. Equipment and response vehicles are available 24 hours a day, 365 days a year.

The HazMat Spill Response Team is trained and qualified in accordance with 29 CFR 1910.120. Radiological responders consist of both nationally-certified and uncertified Health Physicists and certified Radiation Safety Technicians (RST). The RST certification includes core training, site training, a four-hour written examination, and an oral board. In addition, there are sufficient Industrial Hygienists (some nationally-certified) to support response to hazardous materials events.

For major emergencies, the Emergency Response Organization (ERO) would be recalled. The ERO is on-call at all times that they are in the area (including vacation time in the local area). If on official or personal travel outside the paging area (50 mile radius of the Plant), they are permitted to turn their emergency recall pagers off. Pantex also maintains fully-trained and equipped